COMPARATIVE STUDY OF SUICIDE ATTEMPTERS WITH AND WITHOUT PERSONALITY DISORDER

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CERTIFICATE

This is to certify that this dissertation entitled **"COMPARATIVE STUDY OF SUICIDE ATTEMPTERS WITH AND WITHOUT PERSONALITY DISORDER"** is the bonafide original work of **Dr.V.KARTHIKEYAN** in partial fulfillment of the requirement for MD (Branch XVIII) Psychiatric examination of **The Tamil Nadu Dr. MGR Medical University** to be held in April 2011.

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DECLARATION

I, Dr.V.KARTHIKEYAN, solemnly declare that this dissertation entitled **"COMPARATIVE STUDY OF SUICIDE ATTEMPTERS WITH AND WITHOUT PERSONALITY DISORDER"** is a bonafide record of work done by me in the Department of Psychiatry, Government Stanley Medical College and Hospital, Chennai under the guidance of **Prof. Dr.G.S.CHANDRALEKA, M.D., D.P.M,** Head of the Department, Department of Psychiatry, Government Stanley Medical College and Hospital, Chennai – 600 001.

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CONTENTS

INTRODUCTION

Suicide's history goes back at least to man's earliest written records. There are many perspectives from which we can view suicide - historical, sociological, biological, psychological etc. These perspectives not just influence the way we see suicide and suicidal attempts, but also the efforts at suicide prevention.

Suicide is a serious public health problem. There have been dramatic and disturbing increases in suicide among youths. The study of Suicide risk and protective factors and their interaction form the empirical base for suicide prevention. Understanding risk factors can help dispel the myth that suicide is a random act or result from stress alone.

Risk factors for completed suicide include male gender, extremes of age, prior suicide attempts, family history of attempts, psychiatric disorders - Axis I and Axis II diagnosis, substance dependence, adverse life experiences and other social factors.

Suicide completions and suicide attempts can be seen as representing two distinct yet overlapping populations. Books describe a typical suicide completer as a male with Axis I diagnosis of depressive disorder with comorbid substance dependence. A typical suicide

attempter is a young female with Axis II disorders such as borderline, narcissistic, or histrionic personality disorder. Those who have made an attempt of low lethality are often treated dismissively as attention seekers. But, the fact that, at the very least, such individuals are the victims of inadequate coping styles often is ignored. Between 8 to 10 percent of those making an attempt will ultimately kill themselves. Suicide attempts remain the single most important predictor of subsequent death by suicide of all (WHO, 2002).

Suicidal behaviour covers the whole range from suicidal thoughts, to attempted suicide and completed suicide. Considering suicide as a spectrum stretching from ideas and fantasies, wishes, acts to completions, studying suicide attempters will give data that can be extrapolated to completers, keeping in mind that there can be significant differences. Suicide attempts can be up to 10 - 40 times frequent than completed suicides in certain places (WHO, 2002). This indicates an enormous amount of morbidity and burden.

According to WHO/EURO multi-centre study on Para suicide, suicide attempt is defined as "An act with non fatal outcome in which an individual deliberately initiates a non habitual behavior, that without intervention from others will cause self harm, (or) deliberately ingests a

substance in excess of the prescribed (or) generally recognized dosage, and which is aimed at realizing changes that the person desires via the actual (or) expected physical consequences".

Personality Disorders:

The understanding of personality and its disorders is what distinguishes psychiatry fundamentally from all other branches of medicine. Personality disorders (PDs) are common conditions in contemporary society. PDs occur in 10 to 20 percent of the general population and in about half of psychiatric inpatients or outpatients.

The relevance of Personality Disorders in suicide completions has been evaluated by many studies (Cheng et al, 1997; Foster et al 1999; Henrikkson et al 1993; Foster et al 1997). Their relevance in suicide attempts has been brought out by other studies (Suominen et al 1996; Hawton et al 2003).

Among Indian studies, the rate of personality disorders in subjects who have demonstrated acts of self-harm have varied from 7 % (Chandrasekaran et al, 2003) to 64 % (Nath et al, 2008). Sethi et al, 1978 found a rate of 47.8 % and Gupta et al, 1981 a rate of 62.2 % of personality disorders among suicide attempters.

However, few studies have attempted to evaluate the characteristics of suicide attempters with personality disorders and to study if there are major differences with those without personality disorders. Studying the differences would assist the management of these patients. This study is an attempt in that direction.

REVIEW OF LITERATURE

Approximately half the patients visiting the psychiatric clinic have a personality disorder, thus making these disorders, as a group, among the most frequent disorders treated by psychiatrists. Personality disorders should be evaluated in every patient because their presence can influence the course and treatment of the Axis I disorder, which patients typically identify as their chief complaint (Zimmerman, PCNA, September 2008).

Axis II pathology is associated with the chronicity of Axis I disorders (Reich et al, 1991; Rothschild, 2004). Assessments made when patients are symptomatic have strong, consistent, prognostic value (McDermut & Zimmerman, 1998). A thorough personality disorder assessment at the time of the initial evaluation aids case formulation and decisions about treatment approaches.

BURDEN OF SUICIDE

Suicide is an important issue in the Indian context. More than one lakh persons (1,25,017) in India lost their lives by committing suicide during the year 2008. Tamil Nadu ranked second among the states in the number of suicides in 2008 with 14,425, accounting for 11.5 % of the suicides in the country. Tamil Nadu has a rate of suicide of 21.7 %, which

is almost double that of the national average. Chennai city ranked sixth among cities with a suicide rate of 20.4 (Accidental Deaths and Suicides in India, 2008).

Majority of the suicides (37.8%) in India are by those below the age of 30 years. The fact that 71% of suicides in India are by persons below the age of 44 years imposes a huge social, emotional and economic burden on society (Vijayakumar L, 2010).

RISK FACTORS FOR SUICIDE

Studies of suicide have identified a number of risk factors for suicide completion. These include previous suicide attempts, male sex, family history of suicide, and presence of psychiatric problems (Diekstra RF, 1993; Turecki G, 2001). Major community-based psychological autopsy studies have found that between 70% (Houston et al. 2001) and 100% (Dorpat and Ripley 1960) of all suicide victims suffered from a psychiatric axis I disorder.

A number of psychosocial risk factors have also been reported to be significantly associated with the risk of suicide. They include marital disruption, unemployment, lower socioeconomic status, living alone, a recent migration, early parental deprivation, family history of suicidal

behavior and psychopathology, poor physical health and stressful life events (Sainsbury, 1986; Heikkinen et al, 1994; Gould et al, 1996; Foster et al, 1999).

A previous suicide attempt is the best predictor of a future suicide or suicide attempt (Leon AC et al, 1990).

Attempted suicide is stated to be associated with several psychosocial and medical conditions. Young age of 15 to 24 years, female sex, poor education, unemployment, living alone and history of socioeconomic deprivation are stated to be potential risk factors (Schmidtke et al, 1996). Studies have also identified a role of adverse family factors such as parental loss in childhood, family discordance, psychiatric antecedents and exposure of suicide in family (Chastang et al, 1998; Botsis et al, 1995).

Attempters were said to have experienced more stressful life events (Paykel et al, 1974; Murphy et al, 1979; Hawton et al, 1982) preceding the attempts. Similar findings have been reported by Latha et al, 1999, Srivastava et al, 2004 and Chowdhury et al, 2009.

Gelder et al, 1989 observed that the intent is the most important warning sign in assessing suicidal risk. 8 out of 10 had communicated

suicidal intent before the act (Resnik, 1980). In a ten year prospective study of 207 hospitalised suicidal ideators, 14 patients committed suicide and the predictors for suicide were presence of hopelessness and pessimism (Beck et al, 1985).

High rates of psychiatric disorders have been described among patients with Deliberate Self Harm (DSH) (Ennis et al, 1989; Beautrais et al, 1996; Suominen et al 1996; Ferreira de Castro E et al 1998; Hawton et al, 2003), which resemble those in suicide (Isometsä E et al, 1995; Foster et al, 1997). Mood disorders, alcohol dependence, personality disorders and adjustment disorders were most frequent.

Indian studies have found similar findings. Bagadia et al, 1979 found Axis I disorders in around 80 %. Narang et al, 2000, diagnosed mood disorders and adjustment disorders in a significant number of suicide attempters. Similar findings were reported by Gupta and Singh, 1981, Mahla et al, 1992, and Jain et al, 1999.

PERSONALITY DISORDERS IN SUICIDE - A RISK FACTOR

Personality disorders are estimated to be present in more than 30% of individuals who die by suicide, about 40% of individuals who make

suicide attempts and about 50% of psychiatric outpatients who die by suicide (APA, 2003).

Controlled retrospective studies identified personality disorders as risk factors for suicide (Lesage et al. 1994; Cheng et al. 1997; Foster et al. 1999; Vijayakumar and Rajkumar 1999).

Cheng et al. 1997, in their psychological autopsy study found that up to 62% of all suicide victims suffered from a personality disorder. Earlier (Barraclough et al. 1974; Henriksson et al. 1993) as well as more recent reports of mixed age and gender samples (Foster et al. 1999; Vijayakumar and Rajkumar 1999) showed much lower rates.

In studies without use of structured diagnostic instruments, low proportions of axis II disorders or merely axis I disorders were diagnosed. Studies employing structured or semi-structured instruments for assessment of personality disorders have found higher rates of personality disorders (e. g. Lesage et al. 1994; Cheng et al. 1997).

Emotionally unstable and borderline personality disorder have been shown as the most frequent personality disorders in suicides (Rich and Runeson 1992; Henriksson et al. 1993; Cheng et al. 1997; Foster et al. 1999) and are also found as risk factors for suicide in controlled studies

(Lesage et al.1994;Cheng et al. 1997; Foster et al. 1999). Antisocial personality disorder is also frequent, especially in adolescent suicides (up to 43%; Marttunen et al. 1994), and often comorbid with borderline personality disorder (Rich and Runeson 1992; Lesage et al. 1994).

Schneider et al, 2005, investigated the association between personality disorders, axis I disorders, and suicide through a psychological autopsy study. They found that in both genders, a significantly increased risk of suicide was associated with the presence of at least one axis II disorder and all clusters of personality disorders. The estimated suicide risk for the presence of at least one axis II disorder was seven times greater for men and six times greater for women than in the absence of a personality disorder. In both genders, estimated suicide risk for personality disorders was only marginally influenced by adjustment for axis I disorders. They concluded that personality disorders are risk factors for suicide independent of axis I disorders.

The Northern Irish study using DSM-III-R (Foster et al. 1999) found all clusters of personality disorders associated with suicide risk.

Personality disorders were frequent among patients with DSH (Ennis et al, 1989; Suominen K et al, 1996; Ferreira de Castro E et al 1998).

Borderline personality disorder has been reported as the most common personality disorder in several studies of DSH patients (Ennis et al, 1989; Suominen et al, 1996; Gupta & Trzepacz, 1997).

Other studies, such as Dirks et al, 1998 and Hawton et al, 2003, reported the anxious, anankastic and paranoid disorders to be more common in their sample of suicide attempters.

Among Indian studies Sethi et al, 1978, found that almost half of suicide attempters had definite features of personality disorders, while Gupta et al, 1981, observed abnormal personalities in 58 % of subjects, usually of schizoid, hysterical or passive-aggressive type. Gupta et al, 1992, in their two-year follow-up study of patients who had attempted suicide with schizophrenia and depression reported that 51.8 % of the suicide attempters had a personality disorder.

More recently, Latha et al, 1996, found personality disorders in 12 % of the attempters. Chandrasekaran et al, 2003, while evaluating first-time suicide attempters identified personality disorder in 7 % of the patients, using the IPDE, all of whom also suffered from a comorbid psychiatric disorder, and attributes the low prevalence to the choice of the sample. In their study, Anankastic personality disorder was the most diagnosed one (1.7 %) followed by Histrionic personality disorder (1.46%).

Axis II personality disorders are also very relevant to suicide attempts, especially when comorbid with axis I disorders (Linehan MM, 2000).

Comorbidity of axis I and axis II disorders is reported in 14% (Vijayakumar and Rajkumar 1999) to 58% of all suicide victims (Cheng et al. 1997).

Other studies report that personality disorder is rarely found by itself in patients who attempt (Suominen et al, 1996 who found 39.0 %; Hawton et al, 2003 who found 44.1%) or complete (Henriksson MM et al, 1993) suicide.

Axis I/II comorbidity in suicidal patients often complicates clinical evaluations and treatments, and calls for integrated models for care involving multiple agencies. Regrettably, this seems often not to be what patients with personality disorders are offered when in suicidal crises.

PERSONALITY DISORDERS AND SUICIDE – CHARACTERISTICS

In a study comparing clinical characteristics of suicide attempters with and without personality disorders, Suominen et al, 2000, found DSM-III-R personality disorders in 46 subjects out of a total of 114

suicide attempters. They were divided into clusters A (n=4), B (n=34) and C (n=8) and compared with 65 suicide attempters without personality disorders in terms of clinical characteristics. They found that suicide attempts did not differ in terms of suicide intent, hopelessness, lethality or impulsiveness between subjects with or without personality disorders, though those with personality disorders more often had a history of previous suicide attempts.

In a related study, Hawton et al, 2003, comparing suicide attempters with comorbid psychiatric and personality disorders and those without, found 44% of suicide attempters had comorbid psychiatric and personality disorders. Only two of the 51 patients with a personality disorder did not have a psychiatric disorder as well. More patients with comorbid disorders had made previous suicide attempts, including multiple attempts. There was no significant difference in suicidal intent scores or in the estimated consequences of the attempts if untreated. The patients with comorbid disorders had higher scores on the Beck Depression Inventory and Beck Hopelessness Scale.

Comparing recent suicide attempters with and without a diagnosis of Borderline Personality Disorder, Berk et al, 2007, found that suicide attempters with BPD displayed greater severity of overall

psychopathology, depression, hopelessness, suicidal ideation and past suicide attempts. They found no differences between the groups regarding the intent to die or lethality associated with the index suicide attempt. They conclude by highlighting the seriousness of BPD and the risk that individuals diagnosed with this disorder will attempt suicide.

In a study involving adolescent inpatient suicide attempters, those attempters with personality disorder were much more likely to have made a previous attempt (Brent et al, 1993).

Murphy et al, 1982, studying family history of suicidal behavior among suicide attempters found that patients with personality disorders, comprising 45 per cent of the sample, frequently reported a family history of these behaviors, most notably attempted suicide, compared to the others.

In the Collaborative Longitudinal Personality Disorders Study, following up 489 participants with PDs, Yen et al found that negative life events were significant predictors of suicide attempts, even after controlling for baseline diagnoses of borderline PD, major depressive disorders, substance use disorders, and a history of childhood sexual abuse. They concluded that certain types of negative life events are unique risk factors for imminent suicide attempts among individuals with PDs.

In a review on Suicidal behaviour and personality disorder, Lars Mehlum notes that individuals with pronounced impulsivity are probably more vulnerable for suicidal crises to be provoked by negative life events and stress. Impulsivity that is potentially self-damaging is a diagnostic criterion both in borderline and antisocial personality disorder.

Foster et al, 1999, demonstrated the axis I independent influence of negative life events in relation to personality disorders on the development of suicide risk.

Karolina Krysinska and colleagues, in their review on Suicide and deliberate self-harm in personality disorders report that Negative life events, childhood sexual abuse, difficulties in social functioning, deficits in future-directed thinking and time perception, as well as familial and neurocognitive factors may be related to increased suicide risk in individuals with borderline and other personality disorders.

Central to the definition of personality disorder are the interpersonal problems, reduced well-being, and dysfunction that personality disorders imply. However, there are few studies which have evaluated quality of life in personality disorders and its relation to suicide attempts. Linehan et al, 1991, is the only author to report significant changes in suicidal behaviors associated with improvement in quality of life after treatment.

SUICIDE RISK IN PERSONALITY DISORDERS

In clinical populations, the rate of suicide of patients with borderline personality disorder is estimated to be between 8% and 10%, a rate far greater than that in the general population (Perry JC, 1993; Black DW et al, 2004; Oldham JM et al 1992). 60%–70% of patients with borderline personality disorder make suicide attempts (Gunderson JG, 2001; Urnes O., 2009).

Self-harm in patients with personality disorders is associated with borderline personality traits. Up to 70 % of patients with borderline personality disorders have reported non-suicidal self-harm. Non-suicidal self-harm is one of the risk factors for suicide. Non-suicidal self-harm in patients with personality disorders should be given more attention. (Urnes O., 2009).

Numerous studies have identified high rates of comorbidity in patients with borderline personality disorder. Intra-axis-II comorbidity is common (Skodol AE, 2005; Oldham JM 1992). BPD is also typified by multiple Axis I and II disorders and poor psychosocial functioning (Lieb et al., 2004). Axis I/axis II comorbidity is also common (Oldham JM et al, 1995; Torgersen S et al, 2001; Skodol AE, 2005). Comorbidity of BPD with MDD (Skodol AE et al, 1999; Kelly TM et al, 2000; Torgersen S et al, 2001; Yen S et al, 2003; Links PS and Kolla N, 2005).

In a study of inpatients with borderline personality disorder, Soloff and colleagues (2000) reported that the suicidal behaviors of patients with BPD did not differ markedly from those of patients with major depressive episode; also, comorbidity of borderline personality disorder and major depressive episode increased the number and seriousness of suicide attempts. They also identified impulsivity and hopelessness as independent risk factors for suicidal behavior in patients with borderline personality disorder and those with major depressive episode.

Risk Factors for Suicidal Behavior in Patients With Borderline Personality Disorder include prior suicide attempts (Kullgren G, 1998; Soloff PH et al, 2000; Livesley WJ, 2003; Black DW et al, 2004; Soloff PH et al, 2005) Comorbid mood disorder (Soloff PH et al, 2000; Yen S et al, 2003; Black DW et al, 2004; Soloff PH et al, 2005) High levels of hopelessness (Soloff PH et al, 2000) Family history of completed suicide or suicidal behavior (Livesley WJ, 2003) Comorbid substance abuse (Brodsky BS et al, 1997; Shearer SL et al, 1998; Yen S et al, 2003; Black DW et al, 2004).

Unsuccessful suicide attempts are far more frequent than completed suicides in patients with borderline personality disorder. It is estimated that the presence of self-injurious behavior in a given patient

doubles the patient's risk for suicide (Gunderson JG, 2001). It is erroneous, hence, to assume that patients with borderline personality disorder who show self-injurious behavior are not at risk for suicide. Both forms of self-destructive behavior may occur in the same patient.

Among personality disorders, antisocial personality disorder, like borderline personality disorder, is associated with suicide risk. The estimated lifetime suicide risk for patients with antisocial personality disorder is 5% (Dyck, Bland, Newman, & Orn, 1988; Robins, 1966; Links PS, 2003; Links PS, 2005).

In the Collaborative Longitudinal Personality Disorders Study during the first 2 years of follow-up, 9% of study participants reported at least one definitive suicide attempt and 44% of these had multiple suicidal behaviors (Yen et al, 2003). Suicide attempts were more common in borderline patients and in those with drug use disorders. Twelve percent of personality disordered patients attempted suicide by the 3-year follow-up (Yen et al, 2005).

The above evidence clearly shows that suicides and suicide attempts are a great public health problem and a cause of personal morbidity. Further, among the numerous risk factors for suicide are Axis I and Axis II disorders. Studies show that personality disorders are

overrepresented in suicides and suicide attempts and that suicidal behaviour is common and leads to healthcare seeking in people with personality disorders.

Hence, an attempt was made to evaluate the presence of personality disorders among suicide attempters using a semi structured interview (International Personality Disorder Examination) and to assess their differences from those without personality disorders, in order to estimate factors which lead to the increased suicide risk in them. These factors might then be targeted in treatment and prevention.

AIM AND OBJECTIVES

To assess the demographic characteristics, the circumstances of the suicide attempt, family history, stressful life events, depression, hopelessness and perceived quality of life among suicide attempters with Axis II Personality Disorders.

To compare the characteristics of suicide attempters with and without Axis II Personality Disorders to identify factors that explain the high suicide risk associated with Personality Disorders.

HYPOTHESES

1. There is no difference in demographic characteristics between cases and controls.

2. There is no difference in family history details between cases and controls.

3. There is no difference in severity of suicidal intent between cases and controls.

4. There is no difference in stressful life events between cases and controls.

5. There is no difference in depression between cases and controls.

6. There is no difference in hopelessness between cases and controls.

7. There is no difference in perceived quality of life between cases and controls.

MATERIALS AND METHODS

SETTING

The sample was drawn from patients admitted to the Government Stanley Hospital, Chennai following a suicide attempt.

DESIGN

Case Control Study of cross sectional design.

PERIOD OF STUDY

The study was conducted between July 2010 and October 2010.

RECRUITMENT

Suicide attempters with personality disorder formed the study group, and those without, the control group.

INCLUSION CRITERIA

For Study group

1. Admitted for suicide attempt
2. Age > 18 years
3. Presence of Personality Disorder as diagnosed by IPDE
4. Informed Consent

For Control group

1. Admitted for suicide attempt
2. Age > 18 years
3. No diagnosable Personality Disorder
4. Informed Consent

Exclusion Criteria (for both groups)

1. Seriously ill patients
2. Refusal of consent

Instruments Used

1. A semi – structured proforma to collect the socio demographic details and family history details
2. ICD – 10 Clinical Descriptions and Diagnostic Guidelines
3. International Personality Disorder Examination (IPDE)
4. Suicide Intent Scale (Beck et al, 1979)
5. Presumptive Stressful Life Events Scale (PSLES)
6. Hamilton Rating Scale for Depression (HAM-D)
7. Hopelessness Scale (Beck et al, 1974)
8. General Health Questionnaire - 12
9. WHO Quality of Life – BREF (WHOQOL BREF)

SEMI-STRUCTURED PROFORMA

A semi structured proforma was designed for this study to obtain details like age, sex, other demographic characteristics, the method and place of attempt, number of attempts and family history of suicide, suicide attempts, alcoholism and mental illness. (Appendix I)

ICD – 10 CLINICAL DESCRIPTIONS AND DIAGNOSTIC GUIDELINES

This was used to diagnose current and past psychiatric morbidity.

INTERNATIONAL PERSONALITY DISORDER EXAMINATION (IPDE)

The International Personality Disorder Examination (IPDE) is a multidimensional psychometric trait instrument intended for the clinical psychodiagnostic assessment of personality disorders (apparent for at least five years) in adults. An extension and refinement of the Personality Disorder Examination (Loranger, 1988), the IPDE comprises both a pencil-and-paper self-report Screening Questionnaire, and a separate semi structured diagnostic Interview rated by the psychiatric or clinical psychological examiner. It has two separate modules for the ICD-10 and DSM-IV. The Screening Questionnaire test booklet comprises 59 True/False self-report items, while the ICD-10 Interview module comprises 67 items.

The IPDE is arranged in a format that attempts to provide the optimal balance between a spontaneous, natural clinical interview and the requirements of standardization and objectivity. The questions flow in a natural sequence that is congenial to the clinician. They are arranged under six headings: work, self, interpersonal relationships, affects, reality testing, and impulse control. The IPDE Interview examiner ratings can be based either on the patient's own answers to interview questions (contained in the IPDE manual), or on the responses of an informant familiar with the patient's behaviors.

Interrater reliability estimates range from 0.71 to 0.92 (M = 0.83) and Temporal stability coefficients range from 0.55 to 0.84 (M = 0.69) for the number of criteria met. It is noteworthy that NIMHANS in Bangalore was one of the centres involved in the field trial and development of this instrument. (Appendix II)

SUICIDE INTENT SCALE

Beck developed this scale to measure the degree of suicidal intent of an attempt. This scale has 15 questions and has two parts. The first one covers the circumstances, action, etc and the second half a self-report about the belief of the patient regarding his actions. Suicidal intent is taken as the measure of seriousness of the attempt – 'the wish to die'. (Appendix III).

PRESUMPTIVE STRESSFUL LIFE EVENTS SCALE (PSLES)

The above scale was developed by Gurmeet Singh et al. in the year 1983. The scale was revised based on Holmes & Rahe's Social Readjustment Rating Schedule (SRRS), because many items in the SRRS were found to be not applicable to Indian population. The scale consists of 51 items. Each event is given a mean stress score that varies from 20 to 95. The scale was administered for events of previous one year. More than 2 life events in the past one year is significant. The scale is simple to use and can be administered to both, literate and illiterate people. A cumulative score can be obtained by summing up the individual scores. (Appendix IV)

HAMILTON RATING SCALE FOR DEPRESSION (HAM-D)

The HAM-D is designed to rate the severity of depression in patients. The scale has been widely used in clinical practice and is the gold standard for measuring depression. Although the HAM-D form lists 21 items, the scoring is based on the first 17. It generally takes 15-20 minutes to complete the interview and score the results. Eight items are scored on a 5-point scale, ranging from 0 = not present to 4 = severe. Nine are scored from 0-2. (Appendix V).

HAM-D is scored as follows:

0-7	=	Normal
8-13	=	Mild Depression
14-18	=	Moderate Depression
19-22	=	Severe Depression
≥ 23	=	Very Severe Depression

HOPELESSNESS SCALE (HS)

The construct of hopelessness has been defined as a 'system of negative expectancies', or more generally, 'a pessimistic attitude about the future' (Beck, Weissman, Lester, & Trexler, 1974). The construct of hopelessness has been particularly important in identifying depressed individuals at high risk for suicide, with numerous studies demonstrating that hopelessness is the single most powerful predictor of suicidal ideation, suicide attempts, and completed suicides among individuals suffering from depression (Beck, Steer, Beck, & Newman, 1993; Wetzel, 1976). Two sources were utilized in selecting items for this twenty-item, true/false, hopelessness scale. Nine items were selected from a test of attitudes about the future and remaining eleven items were drawn from a pool of pessimistic statements made by psychiatric patients who were adjudged by clinicians to appear hopeless. Those statement were selected which seemed to reflect different facets of the spectrum of negative attitudes. Eleven statements were keyed true and nine were keyed false.

Factor analysis revealed three factors which made sense clinically namely affective, motivational and cognitive (Feelings about the future, loss of motivation, and future expectations).

The total score is a sum of item responses and can range from 0 to 20 such that higher scores reflect higher levels of hopelessness. Scores ranging from 0 to 3 are considered within the normal range, 4 to 8 identify mild hopelessness; scores from 9 to 14 identify moderate hopelessness, and scores greater than 14 identify severe hopelessness (Beck & Steer, 1988). (Appendix VI).

GENERAL HEALTH QUESTIONNAIRE (GHQ)

GHQ is a measure of current mental health. It was developed as a screening tool to detect those likely to have or be at risk of developing psychiatric disorders. It is a measure of the common mental health problems/domains of depression, anxiety, somatic symptoms and social withdrawal. This self-administered questionnaire focuses on two major areas: 1) the inability to carry out normal functions and 2) the appearance of new and distressing phenomena.

The GHQ12 has been widely used in view of its brevity, reliability and sensitivity. The most common scoring methods are bi-modal (0-0-1-1) and Likert scoring styles (0-1-2-3). Each item is accompanied by four possible responses, typically being ‘not at all’, ‘no more than usual’,

'rather more than usual' and 'much more than usual', scoring from 0 to 3, respectively. The total possible score on the GHQ 12 ranges from 0 to 36 and allows for means and distributions to be calculated. Reliability coefficients have ranged from 0.78 to 0.95 in various studies. The GHQ is simple to administer, easy to complete and score. (Appendix VII).

WHOQOL-BREF

This is a generic scale developed simultaneously in 15 field centres around the world (India was one of the participating countries). It is a subjective assessment scale and can be completed with interviewer assistance. This 26-item self-administered scale measures four domains of QOL. They are physical health, psychological health, social relationships and environment. Item numbers 1 (QOL) and 2 (QOL) reflect a general factor named 'general well-being' which is not considered a specific domain. The items are scored from 1 to 5; total scores range from 26 to 130 and are transformed into a scale of 0-100. The psychometric properties of WHOQOL-BREF have been found to be comparable with those of the full version of WHOQOL-100. This scale has shown good discriminant validity, content validity, internal consistency and test-retest reliability. (Appendix VIII).

METHODOLOGY

The study protocol was submitted before the Ethical Committee of Government Stanley Medical College and approval obtained. A copy of the approval certificate is enclosed in the annexure.

Consecutive suicide attempters admitted to the Government Stanley Hospital were recruited into the study after getting informed consent from the patient and a key relative. They were evaluated once their general condition had stabilized. The evaluation was carried out within one week of their suicide attempt.

The suicide attempters were screened for personality disorder using the International Personality Disorder Examination - Screening Questionnaire (IPDE-S). Those who screened positive were administered the IPDE semi structured interview and personality disorder diagnosed.

Those who had a diagnosis of Personality Disorder were included into the study group while those who did not were included into the control group. This procedure was followed till a total of 30 patients each for the study and control groups were obtained. A total of 107 suicide attempters had to be screened to obtain 30 patients each for both the groups.

Detailed history was obtained, mental status examination carried out and psychiatric diagnosis made as per the ICD-10 Clinical descriptions and Diagnostic guidelines.

Sociodemographic information and family history was obtained from the patients in the study and control groups using a semi structured proforma designed for this study. Suicide intent was assessed using Beck's Suicide Intent Scale. Stressful life events in the past one year were obtained using Presumptive Stressful Life Events Scale. Depression was rated using Hamilton Rating Scale for Depression. Beck's hopelessness Scale was used to measure hopelessness and WHOQOL-BREF to measure quality of life. The questionnaires were administered to both the study and the control groups.

Statistical analysis was done using SPSS 14. Chi square test was done for categorical variables with Yates' correction applied wherever necessary. Mann Whitney U test was applied for continuous variables.

RESULTS

The groups were compared for the following variables

1. Sociodemographic variables
2. Psychiatric morbidity
3. Family history
4. Scores on Suicide Intent Scale, PSLES, HAM-D, Hopelessness, GHQ and WHOQOL -BREF

Table 1

Comparison of AGE distribution of cases and controls

	Age			
	20-30	**30-40**	**Total**	Chi-Square = 0.072 df = 1 p = 0.774
Cases	21	9	30	
Controls	22	8	30	
Total	44	17	60	

This table describes the distribution of patients among various age groups. The sample comprised entirely of young adults. The difference between the two groups was not statistically significant.

Table 2

Comparison of SEX distribution of cases and controls

	Sex			
	Male	**Female**	**Total**	Chi-Square = 0.317 df = 1 p = 0.573
Cases	8	22	30	
Controls	9	21	30	
Total	17	43	60	

This table describes the sex distribution among cases and controls. Females outnumber males in both the cases and controls with an overall male : female ratio of 1 : 2.2. The difference in sex distribution between the two groups was not statistically significant.

Table 3

Comparison of RELIGION of cases and controls

	Religion				
	Hindu	**Christian**	**Islam**	**Total**	Chi-Square = 0.103 df = 2 p = 0.950
Cases	19	7	4	30	
Controls	20	6	4	30	
Total	39	13	8	60	

The sample comprised predominantly of persons belonging to Hinduism with 13 belonging to Christianity and 8 belonging to Islam. The difference in religious distribution between the cases and control was not statistically significant.

Table 4

Comparison of DOMICILE STATUS of cases and controls

	Domicile			
	Urban	**Rural**	**Total**	
Cases	24	6	30	Chi-Square = 0.098 df = 1 p = 0.754
Controls	23	7	30	
Total	47	13	60	

This table describes the domicile status of cases and controls. The sample of cases and controls was predominantly urban based with a proportion of around 21 % coming from a rural background.

The difference between the two groups was not statistically significant.

Table 5

Comparison of FAMILY SYSTEM of cases and controls

	Family system			
	Nuclear	**Joint**	**Total**	
Cases	23	7	30	Chi-Square = 0.341 df = 1 p = 0.559
Controls	21	9	30	
Total	44	18	60	

Most of the patients in the study (44) came from a nuclear family system. The difference in family system between the two groups was not statistically significant.

Table 6

Comparison of MARITAL STATUS of cases and controls

	Marital status				
	Unmarried	Married	Separated	Total	Chi-Square=0.311 df = 2 p = 0.856
Cases	5	23	2	30	
Controls	4	23	3	30	
Total	9	46	5	60	

A vast majority of the patients in this study were married (46). Among cases, 5 were unmarried and 2 were separated. Among controls, 2 were unmarried and 3 were separated. The difference in marital status between the two groups was not statistically significant.

Table 7

Comparison of EDUCATIONAL STATUS of cases and controls

	Education				Total	
	Uneducated	**Primary**	**Secondary**	**Tertiary and greater**		
Cases	5	11	10	4	30	Chi-Square = 0.155 df = 3 p = 0.985
Controls	4	12	10	4	30	
Total	9	23	20	8	60	

A substantial proportion of the sample had either primary or secondary education (72 %). Among cases, 11 had primary and 10 secondary education. Among controls, 12 had primary and 10 secondary education.

Around 15 % of the sample was uneducated and a similar proportion had tertiary or greater education.

No significant difference between the two groups was made out in statistical analysis.

Table 8

Comparison of SOCIOECONOMIC STATUS of cases and controls

	Socioeconomic Status			
	LSES	**MSES**	**Total**	
Cases	22	8	30	Chi-Square=0.373 df = 1 p = 0.542
Controls	24	6	30	
Total	46	14	60	

Most of the patients in the study belonged to Low Socioeconomic Status (LSES), with the rest belonging to Middle Socioeconomic Status (MSES). Among cases, 22 belonged to LSES and 8 belonged to MSES. Among controls, 24 belonged to LSES and 6 belonged to MSES.

The difference in socioeconomic status between the two groups was not statistically significant.

Table 9

Comparison of EMPLOYMENT status of cases and controls

	Employment				
	Employed	**Unemployed**	**Otherwise employed - housewife/ student**	**Total**	
Cases	25	2	3	30	Chi-Square = 0.163 df = 2 p = 0.922
Controls	24	2	4	30	
Total	49	4	7	60	

Few patients in the study were unemployed. They numbered 2 each in the cases group and the control group. A vast majority, 25 among cases and 24 among controls were employed. The others were housewives.

The difference in employment status between the two groups was not statistically significant.

Table 10

Comparison of PLACE OF SUICIDE ATTEMPT

of cases and controls

	Place of suicide attempt			
	Within home	**Outside home**	**Total**	
Cases	26	4	30	Chi-Square=0.131 df = 1 p = 0.718
Controls	25	5	30	
Total	51	9	60	

Most patients had attempted suicide within their home. Among cases, 26 patients, and among controls, 25 patients had attempted suicide within their home.

The difference in place of suicide attempt between the two groups was not statistically significant.

Table 11

Comparison of METHOD OF SUICIDE ATTEMPT of cases and controls

	Method of suicide attempt				
	Self poisoning pesticides	**Self poisoning drugs**	**Hanging**	**Total**	
Cases	22	7	1	30	Chi-Square = 0.099 df = 2 p = 0.952
Controls	23	6	1	30	
Total	45	13	2	60	

Most patients had attempted suicide by self poisoning with pesticides or drugs. Among cases and controls, 29 patients each had attempted suicide by self poisoning. One patient in each group had attempted hanging.

The difference in method of suicide attempt between the two groups was not statistically significant.

Table 12

Comparison of MEDICAL ILLNESS among cases and controls

	Medical illness			
	Present	**Absent**	**Total**	
Cases	1	29	30	Chi-Square=0.351 df = 1 p = 0.554
Controls	2	28	30	
Total	3	57	60	

Among cases, one patient and among controls, two patients had medical illness. The difference in medical illness between the two groups was not statistically significant.

Table 13

Comparison of PREVIOUS SUICIDE ATTEMPT
Between cases and controls

	Previous suicide attempt			
	Yes	**No**	**Total**	
Cases	11	19	30	Chi-Square=4.356 df = 1 p = **0.037**
Controls	4	26	30	
Total	15	45	60	

Eleven patients among cases and four patients among controls had made a previous suicide attempt. None of the patients had made more than one attempt.

The difference in previous suicide attempt between cases and controls was **statistically significant.**

Table 14

Comparison of FAMILY HISTORY OF MENTAL ILLNESS among cases and controls

	Family history of mental illness			
	Present	**Absent**	**Total**	
Cases	2	28	30	Chi-Square=0.218 df = 1 p = 0.640
Controls	3	27	30	
Total	5	55	60	

The difference in family history of mental illness between cases and controls was not statistically significant.

Table 15

Comparison of FAMILY HISTORY OF SUICIDE Between cases and controls

	Family history of suicide			
	Present	**Absent**	**Total**	
Cases	6	24	30	Chi-Square = 0.480 df = 1 p = 0.488
Controls	4	26	30	
Total	10	50	60	

The difference in family history of suicide between cases and controls was not statistically significant.

Table 16

Comparison of FAMILY HISTORY OF SUICIDE ATTEMPT among cases and controls

	Family history of suicide attempt			
	Present	**Absent**	**Total**	
Cases	12	18	30	Chi-Square = 4.022 df = 1 p = **0.045**
Controls	5	25	30	
Total	17	43	60	

Twelve patients among cases and five patients among controls had a family history of suicide attempt.

The difference in family history of suicide attempt between cases and controls was **statistically significant**.

Table 17

Comparison of FAMILY HISTORY OF ALCOHOL DEPENDENCE among cases and controls

	Family history of alcohol dependence			
	Present	**Absent**	**Total**	Chi-Square = 0.287 df = 1 p = 0.592
Cases	12	18	30	
Controls	10	20	30	
Total	22	38	60	

Twelve patients among cases and ten patients among controls had a family history of alcohol dependence.

The difference in family history of alcohol dependence between cases and controls was not statistically significant.

Table 18

Comparison of AXIS I DIAGNOSIS among cases and controls

	Axis I Diagnosis				
	No diagnosis	**Schizophrenia**	**Depression**	**Alcohol Dependence**	**Adjustment disorder with depressed mood**
Cases	3	1	16	6	4
Controls	8	0	12	7	3
Total	11	1	28	13	7

Pearson Chi-Square=4.064
df = 4
p = 0.397

A majority of the sample, around 80 % had Axis I diagnosis. Eleven patients, three among cases and eight among controls did not have any Axis I diagnosis. Depression was present in 28, 16 cases and 12 controls. Alcohol dependence was the next common diagnosis, 6 among cases and 7 among controls being diagnosed with it. Adjustment disorder with depressed mood and schizophrenia were the other diagnosis made. None of the patients had more than one Axis I diagnosis. The difference between the two groups with regard to the diagnosis made was not statistically significant.

Table 19

Distribution of Personality Disorders among cases

Serial No.	Personality Disorder	Number of patients	Percentage
1	Schizoid	1	03.33
2	Dissocial	6	20
3	Emotionally Unstable, Impulsive type	7	23.33
4	Emotionally Unstable, Borderline type	18	60
5	Histrionic	3	10

Percentages add up to more than 100 % as 5 patients had comorbidity.

Most of the patients in the study, except for the one diagnosed with Schizoid personality disorder, were diagnosed with Cluster B personality disorders.

Five patients in this study were diagnosed with two personality disorders. Two patients diagnosed with Dissocial personality disorder also fulfilled the criteria for Emotionally Unstable, Impulsive type. All three patients diagnosed with Histrionic personality disorder also fulfilled the criteria for Emotionally Unstable, Borderline type.

Table 20

Comparison of scores on SUICIDE INTENT SCALE among cases and controls

	Group	Mean	Standard Deviation	Mann-Whitney U	p value
Circumstance Score	Case (n=30)	3.30	0.80	375.000	0.249
	Control (n=30)	3.57	1.38		
Self-Report Score	Case (n=30)	4.27	1.08	397.500	0.426
	Control (n=30)	4.63	1.52		
Suicide Intent Total Score	Case (n=30)	7.57	1.55	397.000	0.428
	Control (n=30)	8.20	2.77		

Most patients in the study had suicide intent scores in the moderate range. The difference in scores between the cases and controls did not reach statistical significance.

Table 21

Comparison of scores on PRESUMPTIVE STRESSFUL LIFE EVENTS SCALE (PSLES) among cases and controls

	Group	Mean	Standard Deviation	Mann-Whitney U	p value
PSLES Number of Events	Case (n=30)	2.23	0.63	406.500	0.476
	Control (n=30)	2.10	0.71		
PSLES Total Score	Case (n=30)	112.07	28.89	340.500	0.105
	Control (n=30)	99.50	34.95		

Most patients in the study had experienced at least one stressful life event in the past one year, with a number of them experiencing two or three events.

The difference in the number of events and the scores between the cases and controls did not reach statistical significance.

Table 22

Comparison of scores on PSYCHIATRIC CHARACTERISTICS among cases and controls

	Group	Mean	Standard Deviation	Mann-Whitney U	p value
GHQ Score	Case (n=30)	16.33	2.25	331.000	0.077
	Control (n=30)	14.83	3.54		
HAM-D Score	Case (n=30)	11.13	4.58	307.000	**0.032**
	Control (n=30)	8.73	3.25		
Hopelessness Score	Case (n=30)	7.07	1.62	276.500	**0.010**
	Control (n=30)	5.80	2.38		

The difference in GHQ scores between the cases and controls was not statistically significant.

The scores on HAM-D and Hopelessness scale of the cases were statistically significant from that of the controls. This indicates that the cases, attempters with personality disorder experienced significantly more depression and hopelessness than the controls, attempters without personality disorders.

Table 23

Comparison of scores on WHO Quality of Life BREF (WHOQOL-BREF) among cases and controls

	Group	Mean	Standard Deviation	Mann-Whitney U	p value
WHOQOL BREF Question 1 Score	Case (n=30)	2.50	0.90	306.500	**0.021**
	Control (n=30)	3.03	0.67		
WHOQOL BREF Question 2 Score	Case (n=30)	2.90	0.88	332.500	0.065
	Control (n=30)	3.30	0.79		

The scores on the WHOQOL BREF Question 1 of the cases had statistically significant difference as compared to the controls. This indicates that the cases experienced significantly poor "overall quality of life" as compared to the controls.

The scores on the WHOQOL BREF Question 2 "physical health" did not show statistically significant difference between the cases and controls.

Table 24

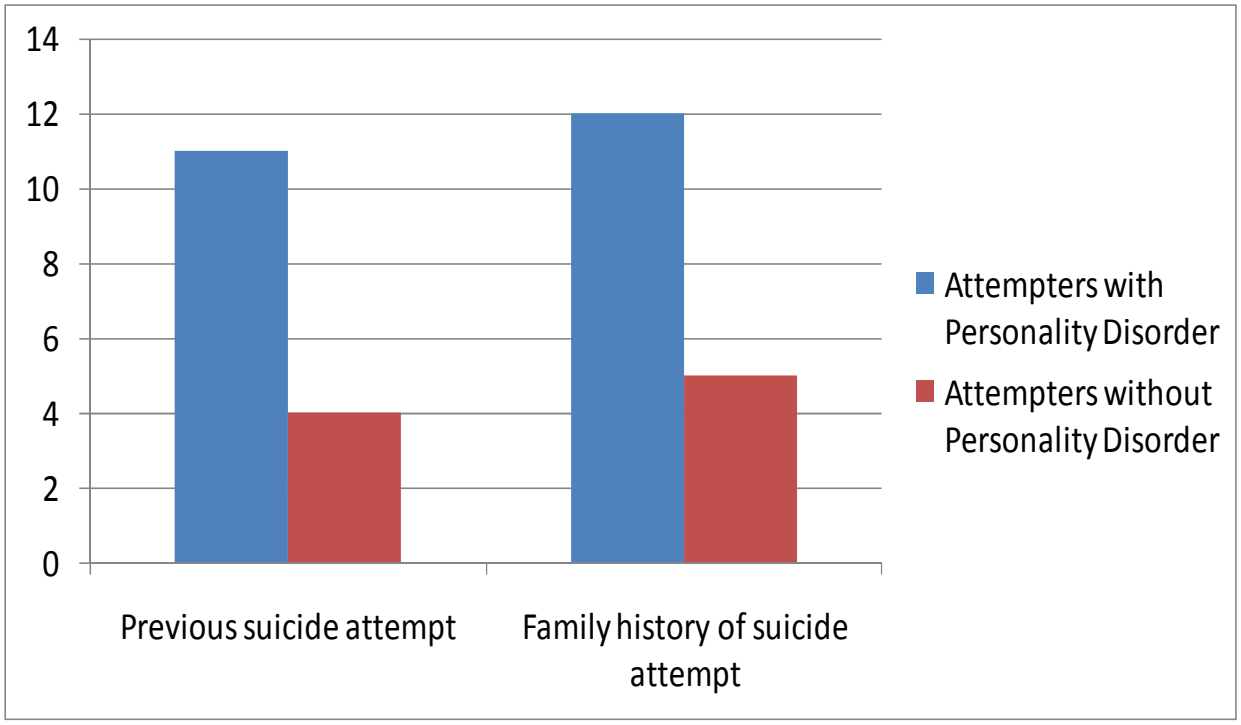
Comparison of scores on WHO Quality of Life BREF (WHOQOL-BREF) Domain Scores among cases and controls

	Group	Mean	Standard Deviation	Mann-Whitney U	p value
WHOQOL Domain 1 Score	Case (n=30)	20.87	2.57	358.500	0.173
	Control (n=30)	21.73	2.21		
WHOQOL Domain 2 Score	Case (n=30)	15.70	2.93	274.000	**0.009**
	Control (n=30)	18.07	3.88		
WHOQOL Domain 3 Score	Case (n=30)	8.17	1.05	237.000	**0.001**
	Control (n=30)	9.37	1.43		
WHOQOL Domain 4 Score	Case (n=30)	27.30	2.78	411.000	0.562
	Control (n=30)	26.77	3.61		

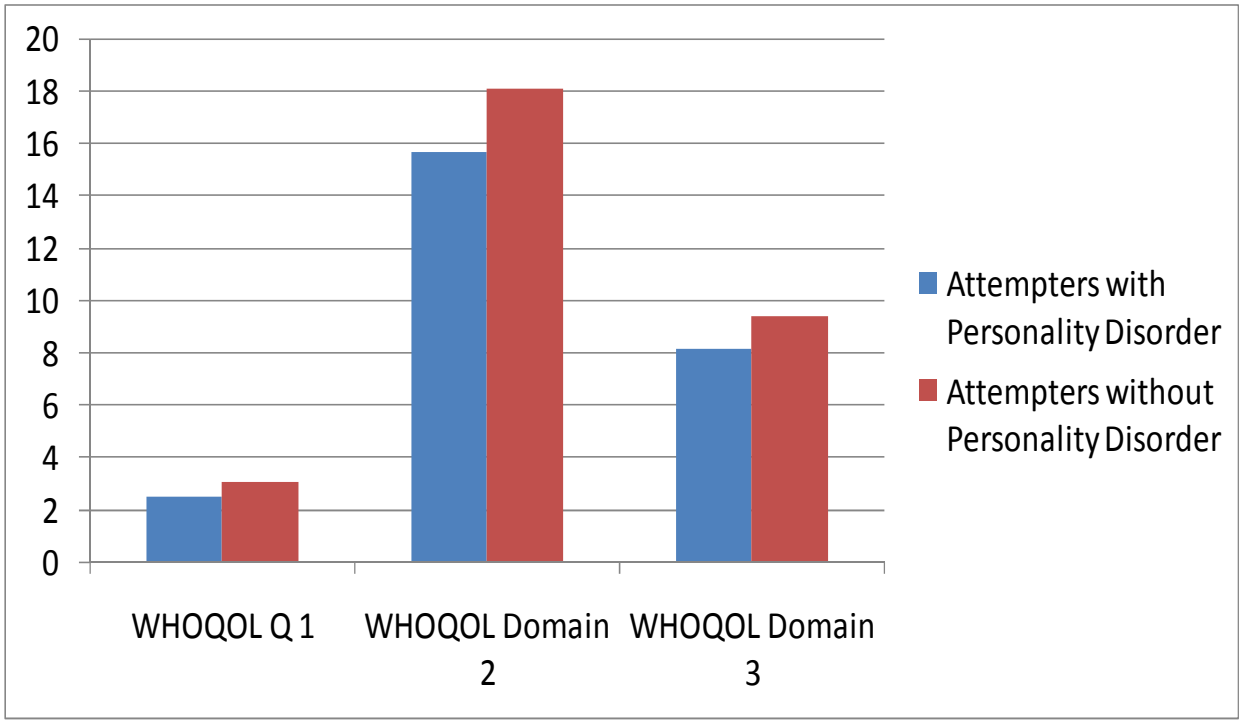
The differences in the scores on WHOQOL Domains 2 and 3 between cases and control reached statistical significance. This indicates that the cases experienced significantly poor quality of life in the domains of psychological health and social relationships as compared to the controls.

The differences in the scores on WHOQOL Domains 1 and 4 between cases and control did not reach statistical significance.

History of suicide attempt



Quality of Life (Scores on WHOQOL- BREF)



DISCUSSION

The study was done using a case control design. Personality disorder was diagnosed using a semi structured interview. Suicide attempters with and without personality disorder were compared for their demographic details, psychiatric morbidity, suicidal intent, stressful life events, depression, hopelessness and quality of life.

SAMPLE CHARACTERISTICS

This sample of attempted suicides entirely comprised of persons below the age of 40 years. It is like those identified in developed countries (Diekstra, 1993; Schmidtke et al. 1996) and in developing countries (Fleischmann et al, 2005). It comprised predominantly of young females, who formed nearly 70 % of the sample. A high proportion of the subjects in this study were married at the time of their attempt and self-poisoning is the most common method of suicide attempt.

Most of the patients were from an urban background and belonged to a nuclear family setup. The majority were from low socioeconomic group. This could be due to the fact that majority of the patients attending the general hospital services hail from the low socio economic group.

AXIS I DISORDERS

Around 90 % of the cases and 73.3 % of the controls had a diagnosable Axis I disorder in our study, making for a total of 80 % out of the total 60 patients studied. This is similar to the rates observed in psychological autopsy studies of completed suicide, that have found between 70% (Houston et al. 2001) and 100% (Dorpat and Ripley 1960) of all suicide victims suffering from a psychiatric axis I disorder.

The most common Axis I disorders diagnosed were Depression, Alcohol Dependence and Neurotic Disorders (Adjustment disorder with depressed mood).

AXIS II DISORDERS

The most common personality disorder found among the study group was Emotionally unstable personality disorder (EUPD), Borderline type. Around 60 % of the patients with personality disorder were diagnosed with EUPD, Borderline type. This was similar to what has been reported by studies such as Ennis et al, 1989, Suominen et al, 1996, and Gupta & Trzepacz, 1997, who also found a high proportion of Borderline personality disorder in their studies on suicide attempters.

Grouping together Emotionally Unstable, Impulsive and Borderline types formed a greater percentage of these patients (around 80 %).

Our finding disagreed with those of Hawton et al, 2003, who reported the anxious, anankastic and paranoid disorders to be more common in their sample of suicide attempters than Emotionally unstable personality disorder.

COMORBIDITY

Few patients in our study had more than one Axis I diagnosis, in comparison to previous studies which reported a high rate of comorbidity. This could be because the diagnosis was made by a Clinical interview, and not using a structured interview.

Only 5 of the 30 cases had more than one diagnosable personality disorder, all of whom were diagnosed with two personality disorders. Two patients diagnosed with Dissocial personality disorder also fulfilled the criteria for Emotionally Unstable, Impulsive type. All three patients diagnosed with Histrionic personality disorder also fulfilled the criteria for Emotionally Unstable, Borderline type.

Most cases, patients with personality disorder, also had a diagnosable Axis I disorder in our study. Only three out of the thirty cases

did not have any Axis I diagnosis. This is similar to the findings of Hawton et al, 2003, who noted Axis I disorder in 49 out of the 51 patients with a personality disorder. This also agreed with other studies which report such comorbidity is common in patients who attempt suicide (Suominen K et al, 1996; Beautrais AL et al 1996)

COMPARISON OF PATIENTS WITH AND WITHOUT PERSONALITY DISORDERS

Sociodemographic details

The patients with and without personality disorders were broadly similar in terms of gender, age, religion. Domicile status, family system, marital status, educational status, socioeconomic status, and employment. There was no statistically significant difference between the two groups in these details. The study subjects were generally representative of the attempted suicide patients seen in the hospital where the study was done. The differences found between the two groups cannot be attributed to these variables. This finding is broadly similar to previous studies. Hawton et al, 2003, found unemployment alone to be significantly greater in those with comorbid psychiatric and personality disorders.

Circumstances of the attempt

There was no significant difference between the patients with and without personality disorders with regard to either the method of the suicide attempt or the place of attempt. The two groups were comparable with regard to the presence of medical illness.

Eleven patients among cases and four patients among controls had made a previous suicide attempt and this difference in previous suicide attempt between cases and controls was statistically significant. Suominen et al., 2000 and Berk et al, 2007, had reported similar findings.

This is in keeping with the literature which reports frequent suicide attempts among Borderline personality disorder patients, who formed a majority of the cases. However, none of our patients had made multiple attempts.

Family history

The two groups were comparable with regard to family history of mental illness, suicide and alcohol dependence. However, there was statistically significant difference between the two groups with regard to family history of suicide attempts. This was in agreement with Livesley WJ , 2003, who describes family history of completed suicide or suicidal

behavior as a risk factor for suicidal behaviour in patients with borderline personality disorder. A similar finding had been reported by Murphy et al, 1982, who had found a positive family history of suicidal attempts in 45 % of attempters with personality disorders.

Suicide intent

Our study found no significant difference between the two groups with regard to the circumstance score, self report score and total scores on the Suicide Intent Scale. This was in agreement with Suominen et al, 2000, who found no significant difference in suicidal intent scores or in the estimated consequences of the attempts if untreated and Hawton et al, 2003.

This indicates that the attempts of the persons with personality disorders should not be taken lightly. Emergency physicians and Clinicians often treat these patients as persons who take up valuable time. Suominen et al, in their analysis had found that these patients were less often referred for appropriate management, even though they did not differ in any way in the lethality of their methods.

Stressful life events

Most patients in the study had experienced at least one stressful life event in the past one year, with a number of them experiencing two or three events. The difference in the number of events and the scores between the cases and controls did not reach statistical significance.

Inherent in the concept of personality disorders is their frequent interpersonal strife, vulnerability to life events and difficulty in coping. Our finding differs from those of Foster et al, 1999 and Yen et al, 2005. This finding might mean that even though they suffer similar life events to other suicide attempters, the impact on them is greater.

Psychiatric Characteristics

General Health Questionnaire was used a nonspecific measure of mental health. Hamilton Rating Scale for Depression was used as a clinician rated scale for depression and Beck's hopelessness scale used to measure hopelessness.

Most patients in both the study and control groups had elevated scores on the GHQ, including those without an Axis I diagnosis, indicating the level of mental health / ill-health at the time of suicide

attempt. However, the difference in GHQ scores between the cases and controls was not statistically significant.

The scores on HAM-D and Hopelessness scale of the cases were significantly different from that of the controls. This indicates that the cases, attempters with personality disorder, experienced significantly more depression and hopelessness than the controls, attempters without personality disorders.

This is similar to the findings of Suominen et al., 2000, Soloff et al, 2000, Hawton et al, 2003 and Berk et al, 2007.

Both depression and hopelessness are risk factors for further attempts. Effective management of depression and hopelessness among suicide attempters with personality disorders would serve to prevent further suicidal behaviour.

Quality of Life

WHOQOL-BREF was used to assess quality of life immediately preceding the attempt. Linehan et al, 1991 reported significant changes in suicidal behaviors associated with improvement in quality of life after treatment.

In our study, there was no significant difference between patients with and without personality disorders in responses to question 2 (health) and domains 1 (physical health) and 4 (environment).

Significant differences were found in responses to question 1 (Overall quality of life) and domains 2 (psychological) and 3 (social relationships). This indicates that patients with personality disorders had significant impairments in overall quality of life and in the areas of psychological health and social relationships.

Treatment does not stop with correction of psychopathology alone. Improvements in functioning and quality of life are the ultimate outcomes aimed for. This study had attempted to see if quality of life had been affected in suicide attempters immediately prior to the attempt and found that it was so. This area needs more attention in research.

Thus, in this study, there were significant differences between patients with and without personality disorders in depressive symptoms, hopelessness and quality of life – overall, psychological and social relationships. There were also significant differences in history of previous suicide attempts and family history of suicide attempts.

There were no significant differences in suicide intent scores and stressful life events. Further, there were no significant differences in Sociodemographic details. So, the differences between the two groups cannot be attributed to demographics.

While clinicians see patients with personality disorders who attempt suicide as attention seekers, manipulators and those who take up valuable time, this study shows that these patients do not differ from the others in their intent to die. It also shows that they attempt suicide more often and experience more depressive symptoms and hopelessness, both risk factors for suicide attempts and completion. They also report a greater family history of suicide attempts. Even if they do not complete suicide, the attempt per se is an indicator of poor mental health. Appropriate identification and treatment can serve to improve their quality of life and prevent further suicidal behaviors.

These findings highlight the seriousness of personality disorders and the risk that individuals diagnosed with these disorders will attempt suicide.

LIMITATIONS

1. The sample was drawn from patients attending a large tertiary hospital. The sample population is not representative of the community and the findings observed, therefore, cannot be generalized to the community.

2. This is a cross-sectional study. Given that personality disorders are diagnosed when the features are typical of long-term functioning and are not limited to a discrete episode, a longitudinal design with follow-up might have been more appropriate.

3. Though a sample size of 30 patients in each group is considered to be enough to detect statistically significant differences a larger sample size would have been ideal.

4. Personality was assessed within a week after the attempt. This leads to a possibility of false positives. However, assessment at a later stage might have meant missing patients due to lack of follow-up.

5. A screening questionnaire, IPDE-S was used to screen for personality disorders, and only those who screened positive were

administered the semi structured interview. It is possible that patients with personality disorders screened negative and might have been missed (False negatives). However, one study using the screening questionnaire, followed by semi structured interview in all the patients, found few cases of personality disorders among those who screened negative.

6. Categorical assessment of personality was made, not dimensional. The categorical approach adopts the medical model that a personality disorder is either present or absent. Hence, positive personality traits were not assessed.

7. All assessment was done by the investigator only hence introducing the risk of an interviewer bias.

SUMMARY AND CONCLUSIONS

Suicide attempters who presented for treatment in a tertiary care hospital were evaluated in this study. Those with and without personality disorders were compared. Sociodemographic details were collected, family history obtained and the patients evaluated for their suicide intent, stressful life events, depression, hopelessness and quality of life. The following conclusions were reached

1. Suicide attempters with personality disorders experienced significantly more depression as compared to those without personality disorders.

2. Suicide attempters with personality disorders experienced significantly more hopelessness as compared to those without personality disorders.

3. Suicide attempters with personality disorders experienced significant impairment in Quality of life measures including overall quality of life, psychological domain and social relationships domain as compared to those without personality disorders.

4. Suicide attempters with personality disorders had more frequently attempted suicide earlier and had more family history of suicide attempts as compared to those without personality disorders.

5. Suicide attempters with personality disorders did not differ significantly from those without personality disorders in demographic details.

6. Suicide attempters with personality disorders did not differ significantly from those without personality disorders in suicidal intent or in having experienced stressful life events.

The findings from this study demonstrate that suicide attempters with personality disorders differ from those without personality disorders in experiencing significantly greater depression and hopelessness and significant impairments in quality of life. Since there was no significant difference in demographic details, the differences can be attributed to the presence of personality disorders in the study group. This indicates that Axis II disorders are commonly seen in suicide attempters and accompanied by significant distress and therefore must be actively sought out and effectively managed.

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APPENDIX- I

Sociodemographic Proforma

1. Name :
2. Age :
3. Sex : (male/female)
4. Religion : (hindu/Christian/muslim)
5. Domicile status : (urban/rural)
6. Family system : (nuclear/joint)
7. Marital Status : (unmarried/married/separated)
8. Education : (uneducated/primary/secondary/tertiary)
9. Socioeconomic status : (low/middle/high)
10. Employment : (employed/unemployed/otherwise employed)
11. Place of attempt : (within home/outside home)
12. Method of attempt : (self poisoning pesticide/self poisoning drugs/hanging)
13. Medical illness : (Present/Absent)
14. Previous suicide attempt : (Yes/No)

Family History of

1. Mental illness : (Present/Absent)
2. Suicide : (Present/Absent)
3. Suicide attempt : (Present/Absent)
4. Alcohol Dependence : (Present/Absent)

APPENDIX- II

IPDE ICD-10 Module Screening Questionnaire

Name: Date:

Directions

- The purpose of this questionnaire is to learn what type of person you have been during the **past five years**.
- Please do not skip any items. If you are not sure of an answer, select the one – True or False- which is **more likely** to be correct. There is no time limit, but do not spend too much time thinking about the answer to any single statement.
- When the answer is True, **circle** the letter T. When the answer is False, **circle** the letter F.

1.	I usually get fun and enjoyment out of life.	T	F
2.	I don't react well when someone offends me.	T	F
3.	I'm not fussy about little details.	T	F
4.	I can't decide what kind of person I want to be.	T	F
5.	I show my feelings for everyone to see.	T	F
6.	I let others make my big decisions for me.	T	F
7.	I usually feel tense or nervous.	T	F
8.	I almost never get angry about anything.	T	F
9.	I go to extremes to try to keep people from leaving me	T	F
10.	I'm a very cautious person.	T	F
11.	I've never been arrested.	T	F
12.	People think I'm cold and detached.	T	F
13.	I get into very intense relationships that don't last.	T	F
14.	Most people are fair and honest with me.	T	F
15.	I find it hard to disagree with people if I depend on them a lot.	T	F
16.	I feel awkward or out of place in social situations.	T	F
17.	I'm too easily influenced by what goes on around me.	T	F
18.	I usually feel bad when I hurt or mistreat someone.	T	F
19.	I argue or fight when people try to stop me from doing what I want	T	F
20.	At times I've refused to hold a job, even when I was expected to.	T	F
21.	When I'm praised or criticized I don't show others my reaction.	T	F

22.	I've held grudges against people for years.	T	F
23.	I spend too much time trying to do things perfectly.	T	F
24.	People often make fun of me behind my back.	T	F
25.	I've never threatened suicide or injured myself on purpose.	T	F
26.	My feelings are like the weather; they are always changing.	T	F
27.	I fight for my rights even when it annoys people.	T	F
28.	I like to dress so I stand out in a crowd.	T	F
29.	I will lie or con someone if it serves my purpose.	T	F
30.	I don't stick with a plan if I don't get results right away.	T	F
31.	I have little or no desire to have sex with anyone.	T	F
32.	People think I'm too strict about rules and regulations.	T	F
33.	I usually feel uncomfortable or helpless when I'm alone.	T	F
34.	I won't get involved with people until I'm certain they like me.	T	F
35.	I would rather not be the centre of attraction.	T	F
36.	I think my spouse (or lover) may be unfaithful to me.	T	F
37.	Sometimes I get so angry I break or smash things.	T	F
38.	I've had close friendships that lasted a long time.	T	F
39.	I worry a lot that people may not like me.	T	F
40.	I often feel "empty" inside.	T	F
41.	I work so hard I don't have time left for anything else.	T	F
42.	I worry about being left alone and having to care for myself.	T	F
43.	A lot of things seem dangerous to me that don't bother most people.	T	F
44.	I have a reputation for being a flirt.	T	F
45.	I don't ask favours from people I depend on a lot.	T	F
46.	I prefer activities that I can do by myself.	T	F
47.	I lose my temper and get into physical fights.	T	F
48.	People think I'm too stiff or formal.	T	F
49.	I often seek advice or reassurance about everyday decisions.	T	F
50.	I keep to myself even when there are other people around.	T	F
51.	It's hard for me to stay out of trouble.	T	F
52.	I'm convinced there's a conspiracy behind many things in the world .	T	F
53.	I'm very moody.	T	F
54.	It's hard for me to get used to a new way of doing things.	T	F
55.	Most people think I'm a strange person.	T	F
56.	I take chances and do reckless things.	T	F
57.	Everyone needs a friend or two to be happy.	T	F
58.	I'm most interested in my own thoughts than what goes on around me.	T	F
59.	I usually try to get people to do things my way.	T	F

APPENDIX- III

SUICIDE INTENT SCALE

Name Date

I. Objective Circumstances Related to Suicide Attempt

1. Isolation

   0. Somebody present

   1. Somebody nearby, on in visual or vocal contact

   2. No one nearby or in visual or vocal contact

2. Timing

   0. Intervention is probable

   1. Intervention is not likely

   2. Intervention is highly unlikely

3. Precautions against discovery / intervention

   0. No precautions

   1. Passive precautions (as avoiding others but doing nothing to prevent their intervention: alone in room with unlocked door)

   2. Active precautions (as locked door)

4. Acting to get help during after attempt

   0. Notified potential helper regarding attempt

   1. Contracted but did not specifically notify potential helper regarding attempt

   2. Did not contact or notify potential helper

5. Final acts in anticipation of death (e.g. will, gifts, insurance)
    0. None
    1. Thought about or made some arrangements
    2. Made definite plans or completed arrangements
6. Active preparation for attempt
    0. None
    1. Minimal to moderate
    2. Extensive
7. Suicidal note
    0. Absence of note
    1. Note written, but torn up : note thought about
    2. Presence of note
8. Overt communication of intent before the attempt
    0. Note
    1. Equivocal communication
    2. Unequivocal communication

II. Self - Report

9. Alleged purpose of attempt
    0. To manipulate environment, get attention, revenge
    1. Components of "0" and "2"
    2. To escape, surcease, solve problems
10. Expectation of fatality
    0. Thought that death was unlikely
    1. Thought that death was possible but not probable
    2. Thought that death was probable or certain

11. Conception of method's lethality

    0. Did less to self than he thought would be lethal

    1. Wasn't sure if what he did would be lethal

    2. Equalled or exceeded what he thought would be lethal

12. Seriousness of attempt

    0. Did not seriously attempt to end life

    1. Uncertain about seriousness to end life

    2. Seriously attempted to end life

13. Attitude toward living/dying

    0. Did not want to die

    1. Components of "0" and "2"

    2. Wanted to die

14. Conception of medical rescuability

    0. Thought that death would be unlikely if he received medical attention.

    1. Was uncertain whether death could be averted by medical attention.

    2. Was certain of death even if he received medical attention.

15. Degree of premediation

    0. None; impulsive

    1. Suicide contemplated for three hours or less prior to attempt

    2. Suicide contemplated for more than three hours prior to attempt.

APPENDIX- IV

PRESUMPTIVE STRESSFUL LIFE EVENTS SCALE (PSLES)

RANK No	LIFE EVENTS	MEAN STRESS SCORE
1	Going on pleasure trip or pilgrimage	20
2	Wife begins or stops work	25
3	Change in eating habits	27
4	Change in social activities	28
5	Reduction in number of family works	29
6	Gain of new family member	30
7	Birth of daughter	30
8	Change in sleeping habits	33
9	Change in working conditions or transfer	33
10	Retirement	35
11	Begin or end schooling	36
12	Outstanding personal achievement	37
13	Change or expansion of business	37
14	Change in residence	39
15	Unfulfilled commitments	40
16	Trouble with neighbor	40
17	Getting married or engaged	43
18	Appearing for an examination or interview	43
19	Failure in examination	43
20	Death of pet	44
21	Major purchase or construction of house	46
22	Break with friend	47
23	Family conflict	47
24	Minor violation of law	48
25	Marriage of daughter or dependent sister	49

RANK No	LIFE EVENTS	MEAN STRESS SCORE
26	Large loan	49
27	Lack of son	51
28	Self or family member unemployed	51
29	Sexual problems	51
30	Conflict over dowry(self or spouse)	51
31	Pregnancy of wife(wanted or unwanted)	52
32	Prophesy of astrologer or palmist, etc	52
33	Trouble at work with colleagues, superiors or subordinates	52
34	Illness of family member	52
35	Financial problem or family loss	52
36	Son or daughter leaving home	54
37	Major personal illness or injury	55
38	Broken engagement or love affair	56
39	Conflict with in-laws(other than dowry)	57
40	Excessive alcohol or drug abuse by family member	57
41	Robbery or theft	58
42	Death of friend	59
43	Property or crop changed	60
44	Marital conflict	61
45	Death of close family member	64
46	Lack of child	66
47	Detention in jail of self or close family member	67
48	Suspension or dismissal from job	72
49	Marital separation or divorce	76
50	Extra-marital relation of spouse	80
51	Death of spouse	95

HAMILTON DEPRESSION RATING SCALE (HAM-D)

(To be administered by a health care professional)

Patient Name _____ **Today's Date** _____

The HAM-D is designed to rate the severity of depression in patients. Although it contains 21 areas, calculate the patient's score on the first 17 answers.

☐ **1. DEPRESSED MOOD**
(Gloomy attitude, pessimism about the future, feeling of sadness, tendency to weep)
0 = Absent
1 = Sadness, etc.
2 = Occasional weeping
3 = Frequent weeping
4 = Extreme symptoms

☐ **2. FEELINGS OF GUILT**
0 = Absent
1 = Self-reproach, feels he/she has let people down
2 = Ideas of guilt
3 = Present illness is a punishment; delusions of guilt
4 = Hallucinations of guilt

☐ **3. SUICIDE**
0 = Absent
1 = Feels life is not worth living
2 = Wishes he/she were dead
3 = Suicidal ideas or gestures
4 = Attempts at suicide

☐ **4. INSOMNIA - Initial**
(Difficulty in falling asleep)
0 = Absent
1 = Occasional
2 = Frequent

☐ **5. INSOMNIA - Middle**
(Complains of being restless and disturbed during the night. Waking during the night.)
0 = Absent
1 = Occasional
2 = Frequent

☐ **6. INSOMNIA - Delayed**
(Waking in early hours of the morning and unable to fall asleep again)
0 = Absent
1 = Occasional
2 = Frequent

☐ **7. WORK AND INTERESTS**
0 = No difficulty
1 = Feelings of incapacity, listlessness, indecision and vacillation
2 = Loss of interest in hobbies, decreased social activities
3 = Productivity decreased
4 = Unable to work. Stopped working because of present illness only. (Absence from work after treatment or recovery may rate a lower score).

☐ **8. RETARDATION**
(Slowness of thought, speech, and activity; apathy; stupor.)
0 = Absent
1 = Slight retardation at interview
2 = Obvious retardation at interview
3 = Interview difficult
4 = Complete stupor

☐ **9. AGITATION**
(Restlessness associated with anxiety.)
0 = Absent
1 = Occasional
2 = Frequent

☐ **10. ANXIETY - PSYCHIC**
0 = No difficulty
1 = Tension and irritability
2 = Worrying about minor matters
3 = Apprehensive attitude
4 = Fears

HAMILTON DEPRESSION RATING SCALE (HAM-D)

(To be administered by a health care professional)

☐ **11. ANXIETY - SOMATIC**

Gastrointestinal, indigestion
Cardiovascular, palpitation, Headaches
Respiratory, Genito-urinary, etc.

0 = Absent
1 = Mild
2 = Moderate
3 = Severe
4 = Incapacitating

☐ **12. SOMATIC SYMPTOMS - GASTROINTESTINAL**

(Loss of appetite , heavy feeling in abdomen; constipation)

0 = Absent
1 = Mild
2 = Severe

☐ **13. SOMATIC SYMPTOMS - GENERAL**

(Heaviness in limbs, back or head; diffuse backache; loss of energy and fatiguability)

0 = Absent
1 = Mild
2 = Severe

☐ **14. GENITAL SYMPTOMS**

(Loss of libido, menstrual disturbances)

0 = Absent
1 = Mild
2 = Severe

☐ **15. HYPOCHONDRIASIS**

0 = Not present
1 = Self-absorption (bodily)
2 = Preoccupation with health
3 = Querulous attitude
4 = Hypochondriacal delusions

☐ **16. WEIGHT LOSS**

0 = No weight loss
1 = Slight
2 = Obvious or severe

☐ **17. INSIGHT**

(Insight must be interpreted in terms of patient's understanding and background.)

0 = No loss
1 = Partial or doubtfull loss
2 = Loss of insight

TOTAL ITEMS 1 TO 17: _____

0 - 7 = Normal
8 - 13 = Mild Depression
14-18 = Moderate Depression
19 - 22 = Severe Depression
≥ 23 = Very Severe Depression

☐ **18. DIURNAL VARIATION**

(Symptoms worse in morning or evening. Note which it is.)

0 = No variation
1 = Mild variation; AM ( ) PM ( )
2 = Severe variation; AM ( ) PM ( )

☐ **19. DEPERSONALIZATION AND DEREALIZATION**

(feelings of unreality, nihilistic ideas)

0 = Absent
1 = Mild
2 = Moderate
3 = Severe
4 = Incapacitating

☐ **20. PARANOID SYMPTOMS**

(Not with a depressive quality)

0 = None
1 = Suspicious
2 = Ideas of reference
3 = Delusions of reference and persecution
4 = Hallucinations, persecutory

☐ **21. OBSESSIONAL SYMPTOMS**

(Obsessive thoughts and compulsions against which the patient struggles)

0 = Absent
1 = Mild
2 = Severe

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* Adapted from Hamilton, M. *Journal of Neurology, Neurosurgery, and Psychiatry*. 23:56-62, 1960.

APPENDIX - VI

HOPELESSNESS SCALE

Name Date

This questionnaire consists of a list of 20 statements (sentences).

Please read the statements carefully one by one.

If the statement describes your attitude for the past week, including today, write TRUE next to it. If the statement is false for you, write FALSE next to it. You may simply write T for TRUE and F for FALSE.

Please be sure to read each sentence

A. I look forward to the future with hope and enthusiasm.

B. I might as well give up because there's nothing I can do about making things better for myself.

C. When things are going badly, I am helped by knowing that they can't stay that way forever.

D. I can't imagine what my life would be like in 10 years.

E. I have enough time to accomplish the things I most want to do.

F. In the future I expect to succeed in what concerns me most.

G. My future seems dark to me.

H. I happen to be particularly lucky and I expect to get more of the good things in life than the average person.

I. I just don't get the breaks, and there's no reason to believe I will in the future.

J. My past experiences have prepared me well for my future.

K. All I can see ahead of me is unpleasantness rather than pleasantness.

L. I don't expect to get what I really what.

M. When I look ahead to the future I expect I will be happier than I am now.

N. Things just won't work out the way I want them to.

O. I have great faith in the future.

P. I never get what I want so it's foolish to want anything.

Q. It is very unlikely that I will get any real satisfaction in the future.

R. The future seems vague and uncertain to me.

S. I can look forward to more good times than bad times.

T. There's no use in really trying to get something I want because I probably won't.

Scoring

For every statement a score "1" is assigned if the patient's response agrees with the key (pessimistic answer). The maximum pessimistic score for feelings about the future is "20". Nonmatching responses are scored "0" (optimistic answer).

Scoring Key

(1) F	(6) F	(11) T	(16) T
(2) T	(7) T	(12) T	(17) T
(3) F	(8) F	(13) F	(18) T
(4) T	(9) T	(14) T	(19) F
(5) F	(10) F	(15) F	(20) T

APPENDIX- VII

General Health Questionnaire – 12

Name **Date**

Please consider the last four weeks and answer the following questions by selecting and circling one of the four answer options.

Sl. No	Question	0	1	2	3
1.	Been able to concentrate on what you're doing	Better than usual	Same as usual	Less than usual	Much less than usual
2.	Lost much sleep over worry	Not at all	No more than usual	Rather more than usual	Much more than usual
3.	Felt you were playing a useful part in things	More so than usual	Same as usual	Less useful than usual	Much less useful
4.	Felt capable of making decisions about things	More so than usual	Same as usual	Less useful than usual	Much less useful
5.	Felt constantly under strain	Not at all	No more than usual	Rather more than usual	Much more than usual
6.	Felt you couldn't overcome your difficulties	Not at all	No more than usual	Rather more than usual	Much more than usual
7.	Been able to enjoy your normal day-to-day activities	More so than usual	Same as usual	Less useful than usual	Much less useful
8.	Been able to face up to your problems	More so than usual	Same as usual	Less useful than usual	Much less useful
9.	Been feeling unhappy and depressed	Not at all	No more than usual	Rather more than usual	Much more than usual
10.	Been losing confidence in yourself	Not at all	No more than usual	Rather more than usual	Much more than usual
11.	Been thinking of yourself as a worthless person.	Not at all	No more than usual	Rather more than usual	Much more than usual
12.	Been feeling reasonably happy, all things considered	More so than usual	About the same as usual	Less so than usual	Much less than usual

WHO/MSA/MNH/PSF/97.4
English only
Distr.: Limited

WHOQOL-BREF

PROGRAMME ON MENTAL HEALTH
WORLD HEALTH ORGANIZATION
GENEVA

For office use only

	Equations for computing domain scores	Raw score	Transformed scores*	
			4-20	**0-100**
Domain 1	(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 2	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 3	Q20 + Q21 + Q22 ☐ + ☐ + ☐	=		
Domain 4	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		

* Please see Table 4 on page 10 of the manual, for converting raw scores to transformed scores.

I.D. number

ABOUT YOU

Before you begin we would like to ask you to answer a few general questions about yourself: by circling the correct answer or by filling in the space provided.

What is your **gender**? Male Female

What is you **date of birth**? _____ / _____ / _____
Day / Month / Year

What is the highest **education** you received?
None at all
Primary school
Secondary school
Tertiary

What is your **marital status**?
Single Separated
Married Divorced
Living as married Widowed

Are you currently **ill**? Yes No

If something is wrong with your health what do you think it is?_____illness/ problem

Instructions

This assessment asks how you feel about your quality of life, health, or other areas of your life. **Please answer all the questions.** If you are unsure about which response to give to a question, **please choose the one** that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life **in the last two weeks.** For example, thinking about the last two weeks, a question might ask:

		Not at all	Not much	Moderately	A great deal	Completely
	Do you get the kind of support from others that you need?	1	2	3	4	5

You should circle the number that best fits how much support you got from others over the last two weeks. So you would circle the number 4 if you got a great deal of support from others as follows.

		Not at all	Not much	Moderately	A great deal	Completely
	Do you get the kind of support from others that you need?	1	2	3	4	5

You would circle number 1 if you did not get any of the support that you needed from others in the last two weeks.

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very poor	Poor	Neither poor nor good	Good	Very good
1(G1)	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2 (G4)	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3 (F1.4)	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4(F11.3)	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5(F4.1)	How much do you enjoy life?	1	2	3	4	5
6(F24.2)	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7(F5.3)	How well are you able to concentrate?	1	2	3	4	5
8 (F16.1)	How safe do you feel in your daily life?	1	2	3	4	5
9 (F22.1)	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		Not at all	A little	Moderately	Mostly	Completely
10 (F2.1)	Do you have enough energy for everyday life?	1	2	3	4	5
11 (F7.1)	Are you able to accept your bodily appearance?	1	2	3	4	5
12 (F18.1)	Have you enough money to meet your needs?	1	2	3	4	5
13 (F20.1)	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14 (F21.1)	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither	Good	Very good

				poor nor good		
15 (F9.1)	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16 (F3.3)	How satisfied are you with your sleep?	1	2	3	4	5
17 (F10.3)	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18(F12.4)	How satisfied are you with your capacity for work?	1	2	3	4	5
19 (F6.3)	How satisfied are you with yourself?	1	2	3	4	5
20(F13.3)	How satisfied are you with your personal relationships?	1	2	3	4	5
21(F15.3)	How satisfied are you with your sex life?	1	2	3	4	5
22(F14.4)	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23(F17.3)	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24(F19.3)	How satisfied are you with your access to health services?	1	2	3	4	5
25(F23.3)	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26 (F8.1)	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Did someone help you to fill out this form?.....

How long did it take to fill this form out?.....

Do you have any comments about the assessment?

.....

.....

THANK YOU FOR YOUR HELP

சுய ஒப்புதல் படிவம்

ஆய்வின் பெயர் : தற்கொலை முயற்சி செய்தவர்களிடம் அவர்களது ஆளுமை குறித்த ஆய்வு

ஆராய்ச்சி நிலையம் : மனநலப்புறநோளாளிகள் பிரிவு
அரசு ஸ்டான்லி மருத்துவமனை,
சென்னை 600 001.

பங்கு பெறும் நோயாளியின் பெயர் :

பங்கு பெறும் நோயாளியின் எண் :

பெற்றோர்/உறவினர் இதனை (✓)குறிக்கவும் :

மேலே குறிப்பிட்டுள்ள மருத்துவ ஆய்வின் விவரங்கள் எனக்கு விளக்கபட்டது. என்னுடைய சந்தேகங்களைக் கேட்கவும். அதற்கான தகுந்த விளக்கங்களைப் பெறவும் வாய்ப்பளிக்கப்பட்டது. ☐

நான் இவ்வாய்வில் தன்னிச்சையாகத்தான் பங்கேற்கிறேன். எந்த காரணத்தினாலும் எந்த கட்டத்திலும் எந்த சட்ட சிக்கலுக்கும் உட்படாமல் நான் இவ்வாய்வில் இருந்து விலகிக் கொள்ளலாம் என்றும் அறிந்து கொண்டேன். ☐

இந்த ஆய்வு சம்பந்தமாகவும், இதைச் சார்ந்த மேலும் ஆய்வு மேற்கொள்ளும் போதும், இந்த ஆய்வில் பங்குபெறும் மருத்துவர் என்னுடைய மருத்துவ அறிக்கைகளைப் பார்ப்பதற்கு என் அனுமதி தேவையில்லை என அறிந்து கொள்கிறேன். நான் ஆய்வில் இருந்து விலகிக் கொண்டாலும் இது பொருந்தும் என அறிகிறேன். ☐

இந்த ஆய்வின் மூலம் கிடைக்கும் தகவல்களையும், பரிசோதனை முடிவுகளையும் மற்றும் சிகிச்சை தொடர்பான தகவல்களையும் மருத்துவர் மேற்கொள்ளும் ஆய்வில் பயன்படுத்திக் கொள்ளவும் அதை பிரசுரிக்கவும் என் முழுமனதுடன் சம்மதிக்கிறேன். ☐

பங்கேற்பவரின் கையொப்பம் ..... இடம் ..... தேதி

கட்டைவிரல் ரேகை

பங்கேற்பவரின் காப்பாளரின் கையொப்பம் ..... இடம் ..... தேதி

கட்டைவிரல் ரேகை

பங்கேற்பவரின் பெயர் மற்றும் விலாசம் .....

ஆய்வாளரின் கையொப்பம் ..... இடம்.....தேதி

ஆய்வாளரின் பெயர் .....

நோயாளி பங்கு பெறும் ஆய்வு குறித்த தகவல் அறிவிப்பு படிவம்

ஸ்டான்லி மருத்துவமனையின் மனநல புறநோயாளிகள் பிரிவில் ஆய்வு நடத்தப்படுகிறது. இதில் நோய் பாதிப்பிற்கு முந்தைய ஆளுமை, நோயின் அறிகுறிகள் குறித்த பகுத்தாய்வு, மருந்து மற்றும் போதை பொருள் உட்கொள்ளும் பழக்கம், தற்கொலை முயற்சிக்கான அறிகுறிகள் ஆகிய பண்புகளை ஆய்வு செய்து ஏதாவது மாறுபட்டு இருந்தால் சிகிச்சை வெற்றிகரமாக அமைய எடுக்க வேண்டிய முயற்சிகள் குறித்து ஆய்வு செய்யப்படுகிறது.

இந்த ஆய்வு தேர்ச்சி பெற்ற மருத்துவர்களால் இந்த மருத்துவமனையில் நடத்தப்படுகிறது. இந்த ஆய்வுக்காக சிகிச்சையில் எந்தவித புது மாற்றமும் இல்லை. ஆய்வுக்காக தனிப்பட்ட முறையில் ஊசிகளோ, இரத்தபரிசோதனைகளோ, அறுவை சிகிச்சைகளோ இல்லை.

நோயாளியின் சம்மதம் பெறப்படும் மற்றும் சட்டபூர்வமான வழிமுறைகள் பின்பற்றப்படும்.

நோயாளியின் கையொப்பம் - ரேகை

நோயாளியின் காப்பாளரின் கையொப்பம் - ரேகை

ஆய்வு செய்பவரின் கையொப்பம்

INSTITUTIONAL ETHICAL COMMITTEE, STANLEY MEDICAL COLLEGE, CHENNAI-3

Title of the Work : A comparative study of suicide attempters with and without personality disorders

Principal Investigator : Dr.V. Karthikeyan
Designation : P.G.In M.D (Psychiatry)
Department : Psychiatry

The request for an approval from the Institutional Ethical Committee (IEC) was considered on the IEC meeting held on 28.06.2010 at the Modernised Seminar Hall, Stanley Medical College, Chennai-1 at 2PM

The members of the Committee, the secretary and the Chairman are pleased to approve the proposed work mentioned above, submitted by the principal investigator.

The Principal investigator and their team are directed to adhere to the guidelines given below:

1. You should inform the IEC in case of changes in study procedure, site investigator investigation or guide or any other changes.
2. You should not deviate form the area of the work for which you applied for ethical clearance.
3. You should inform the IEC immediately, in case of any adverse events or serious adverse reaction.
4. You should abide to the rules and regulation of the institution(s).
5. You should complete the work within the specified period and if any extension of time is required, you should apply for permission again and do the work.
6. You should submit the summary of the work to the ethical committee on completion of the work.

MEMBER SECRETARY,
IEC, SMC, CHENNAI

Status	Age	Sex	Religion	Location	Family system	Marital status	Education	Socio economic status	Employment	Place of attempt	Method of attempt	Medical illness
1	2	2	2	2	1	2	2	2	1	1	1	2
1	2	1	1	2	1	2	3	2	1	1	1	2
1	2	2	2	1	1	2	2	2	1	1	1	2
1	2	2	3	1	1	1	4	1	1	1	1	2
1	2	2	1	1	1	2	2	1	1	1	1	2
1	2	2	1	1	2	1	1	1	2	2	1	2
1	2	2	2	1	1	2	3	1	1	1	1	2
1	2	2	1	1	1	2	4	1	3	1	1	2
1	2	2	1	1	2	1	2	1	1	1	2	2
1	3	1	3	1	1	2	2	1	1	1	1	2
1	2	2	1	1	1	2	2	1	1	1	1	2
1	2	1	1	1	2	1	3	1	1	2	1	2
1	3	2	2	1	1	1	3	1	1	1	2	2
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1	3	1	1	1	1	3	3	1	1	1	1	2
1	2	1	2	2	1	2	3	1	1	1	1	2
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1	2	2	1	1	1	2	2	1	1	1	1	2
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1	3	2	1	1	1	2	3	1	1	1	2	2
1	2	2	1	2	2	2	2	1	1	1	1	2
1	3	2	2	2	1	2	1	1	3	2	1	2
1	2	2	3	1	2	2	2	2	1	2	2	2
2	2	2	3	1	1	2	2	1	1	1	1	2

Status	Age	Sex	Religion	Location	Family system	Marital status	Education	Socio economic status	Employment	Place of attempt	Method of attempt	Medical illness
2	3	1	2	2	1	3	3	1	1	2	1	2
2	3	2	1	1	1	2	3	1	1	1	1	2
2	2	2	1	2	1	2	3	2	1	1	2	2
2	2	2	1	2	1	3	2	2	1	1	1	2
2	3	1	3	1	2	2	1	1	1	1	3	2
2	2	2	2	2	2	3	4	1	1	2	1	1
2	2	2	1	2	1	2	3	1	1	1	2	2
2	2	2	2	1	1	2	3	1	1	1	2	2
2	2	1	1	1	2	2	1	1	1	1	1	2
2	2	2	1	1	1	2	4	1	1	1	2	2
2	2	1	2	2	1	2	2	1	1	2	1	2
2	2	2	1	1	1	2	2	1	3	1	1	2
2	2	2	1	1	1	1	4	1	1	1	2	2
2	2	2	1	1	1	2	2	1	1	1	1	2
2	3	1	1	1	1	2	2	1	2	2	1	2
2	2	1	1	1	1	2	2	2	2	1	1	2
2	2	2	1	1	1	2	2	1	3	1	1	2
2	2	1	1	1	2	1	2	1	1	1	1	2
2	2	2	1	2	1	1	3	1	1	1	1	2
2	2	2	1	1	1	2	3	1	1	1	1	2
2	2	1	1	1	1	2	2	1	1	1	1	2
2	3	2	2	1	1	2	3	2	1	2	1	2
2	3	1	1	1	2	2	2	1	1	1	1	2
2	3	1	1	1	1	2	1	1	1	1	1	2
2	2	2	2	1	2	2	1	2	1	1	2	2
2	2	2	1	1	1	1	4	2	3	1	1	2
2	3	2	3	1	2	2	3	1	1	1	1	1
2	2	2	3	1	2	2	3	1	1	1	1	2
2	2	2	1	1	2	2	2	1	3	1	1	2

Previous suicide attempt	Family history of mental illness	Family history of suicide	Family history of suicide attempt	Family history of alcohol dependence	Circumstance score	Self report score	Total score	PSLES events	PSLES score	GHQ score
1	2	2	1	2	3	4	7	2	97	16
2	2	2	1	1	3	4	7	1	43	13
2	2	2	1	2	2	4	6	3	110	14
1	2	2	1	2	4	6	10	2	123	18
2	2	2	2	2	4	6	10	3	155	18
2	1	1	1	1	2	4	6	2	106	18
1	2	2	1	2	3	5	8	3	165	16
1	2	1	1	1	5	5	10	2	105	18
2	2	1	1	2	2	4	6	3	146	15
1	2	1	1	2	4	2	6	2	116	15
2	2	2	1	2	5	6	11	1	58	19
2	2	2	2	1	3	3	6	2	99	12
2	2	2	2	2	3	5	8	3	154	17
1	2	1	2	1	3	3	6	2	124	15
1	2	1	2	1	4	5	9	2	86	21
2	2	2	2	1	3	4	7	2	111	14
2	2	2	2	2	3	4	7	2	108	16
2	2	2	2	2	3	5	8	3	147	15
1	1	2	2	1	4	3	7	3	126	13
1	2	2	2	2	3	4	7	2	106	15
1	2	2	2	2	4	5	9	3	147	19
1	2	2	1	2	3	3	6	1	80	19
2	2	2	2	2	3	5	8	2	111	17
2	2	2	2	1	4	3	7	3	119	18
2	2	2	2	2	3	5	8	2	89	17
2	2	2	2	1	3	3	6	2	84	13
2	2	2	1	2	3	3	6	2	108	17
2	2	2	2	1	4	6	10	3	153	20
2	2	2	2	2	2	4	6	2	94	17
2	2	2	2	1	4	5	9	2	92	15
1	2	2	1	2	5	6	11	3	171	20

Previous suicide attempt	Family history of mental illness	Family history of suicide	Family history of suicide attempt	Family history of alcohol dependence	Circumstance score	Self report score	Total score	PSLES events	PSLES score	GHQ score
2	1	2	1	2	2	3	5	2	125	10
2	2	2	1	2	5	5	10	2	116	17
2	2	2	1	2	4	5	9	2	95	15
2	2	2	1	1	3	3	6	2	91	14
2	2	1	2	2	5	7	12	3	153	21
1	2	1	2	1	5	7	12	2	84	19
2	2	2	2	2	2	3	5	1	67	13
2	2	2	2	1	4	5	9	2	75	16
2	2	2	2	2	2	2	4	1	33	7
2	2	2	2	2	2	4	6	1	64	14
2	2	1	2	1	3	4	7	2	80	11
2	1	1	2	2	5	6	11	3	139	20
2	2	2	2	2	1	3	4	1	57	12
2	2	2	2	2	3	4	7	2	73	13
2	2	2	2	1	3	3	6	2	96	11
1	2	2	2	2	4	4	8	2	105	15
1	2	2	2	2	5	7	12	2	80	19
2	2	2	2	1	3	3	6	3	129	11
2	2	2	2	2	1	4	5	1	52	12
2	2	2	2	2	4	4	8	2	80	16
2	2	2	2	2	3	5	8	3	120	13
2	2	2	2	1	5	7	12	3	123	18
2	2	2	2	1	3	3	6	2	103	12
2	2	2	2	2	5	6	11	2	160	19
2	2	2	2	1	5	5	10	3	110	15
2	2	2	2	2	1	3	4	1	51	12
2	2	2	2	2	4	5	9	2	83	13
2	1	2	2	1	5	7	12	3	152	19
2	2	2	2	2	5	6	11	3	118	18

HAMD score	Hopelessnes	WHOQOL Domain 1	WHOQOL Domain 2	WHOQOL Domain 3	WHOQOL Domain 4	Axis I diagnosis	Axis II diagnosis	WHOQOL 1	WHOQOL 2
7	5	25	21	10	32	4	4	3	4
6	7	20	20	9	26	3	2,3	3	4
7	7	23	17	9	30	0	4	3	3
17	11	17	13	7	25	2	4	2	2
15	8	24	13	8	29	2	4	1	2
7	8	20	14	8	27	4	3	2	4
17	6	21	13	7	26	2	4	3	3
15	8	19	11	8	24	2	4	1	2
7	6	25	18	10	31	0	3	3	3
7	6	21	14	7	26	3	2,3	3	4
14	9	18	12	7	22	2	4	1	2
7	6	22	20	8	29	3	2	3	4
15	6	18	14	9	27	2	4	2	2
11	6	24	20	9	32	2	4,5	2	2
19	10	19	13	8	24	2	4,5	1	2
6	7	21	20	9	26	3	2	3	4
6	6	20	17	7	24	3	2	4	4
12	7	17	12	8	26	2	4	3	3
6	9	21	17	7	27	1	1	3	2
13	6	25	18	9	30	2	4	2	2
15	9	17	13	7	25	2	4	2	2
7	7	19	14	8	26	4	3	4	4
15	6	22	15	8	26	2	4	3	3
6	5	21	18	8	28	3	2	3	4
15	10	21	14	7	26	2	3	1	2
6	7	24	17	9	30	0	3	3	3
16	5	24	17	10	33	2	4,5	2	2
16	8	17	13	6	25	2	4	2	2
7	6	22	19	9	31	4	4	4	4
17	5	19	14	9	26	2	4	3	3
14	9	20	15	7	23	2	0	2	3

HAMD score	Hopelessnes	WHOQOL Domain 1	WHOQOL Domain 2	WHOQOL Domain 3	WHOQOL Domain 4	Axis I diagnosis	Axis II diagnosis	WHOQOL 1	WHOQOL 2
7	5	24	22	11	27	3	0	3	2
9	5	23	15	8	25	2	0	3	4
7	5	21	16	10	28	4	0	3	3
7	3	23	22	11	31	0	0	4	4
11	9	19	14	8	25	2	0	2	2
14	11	17	12	8	20	2	0	2	3
7	4	25	21	11	31	0	0	3	4
11	4	22	16	9	25	2	0	3	4
6	4	23	26	11	33	0	0	4	3
5	3	24	20	10	32	0	0	4	4
5	6	21	23	11	30	3	0	4	4
12	8	20	14	8	23	2	0	3	3
7	3	25	20	10	31	0	0	3	4
6	3	25	22	10	30	0	0	4	4
6	5	23	23	10	28	3	0	3	4
7	7	20	19	8	25	3	0	3	4
16	8	19	14	7	24	2	0	2	3
6	5	23	20	10	28	3	0	3	1
6	3	22	20	12	30	0	0	3	4
7	5	23	16	10	27	4	0	4	4
8	7	23	22	10	30	3	0	4	4
11	10	18	11	7	20	2	0	2	3
6	4	21	22	10	27	3	0	3	2
12	10	21	15	8	23	2	0	3	3
10	5	21	17	10	24	2	0	3	3
6	4	25	21	11	31	0	0	3	4
6	4	22	15	9	26	4	0	3	3
12	8	21	14	8	22	2	0	2	3
15	7	18	15	8	24	2	0	3	3

Key to Master Chart

	1	2	3	4
Status	Case (Attempters with personality disorder)	Control (Attempters without personality disorder)		
Age	<20	20-30	30-40	>40
Sex	Male	Female		
Religion	Hindu	Christian	Muslim	
Domicile status	Urban	Rural		
Family system	Nuclear family	Joint family		
Marital status	Unmarried	Married	Separated	
Education	Uneducated	Primary	Secondary	Tertiary and Greater
Socioeconomic Status (SES)	Low SES	Middle SES	High SES	
Employment	Employed	Unemployed	Otherwise employed	
Place of attempt	Within home	Outside home		
Method	Self Poisoning (pesticides)	Self Poisoning (drugs)	Hanging	
Medical illness	Present	Absent		
Previous Suicide attempt	Yes	No		
Family history of Mental Illness	Present	Absent		
Family history of Suicide	Present	Absent		
Family history of Suicide attempt	Present	Absent		
Family history of Alcohol Dependence	Present	Absent		

Axis I Diagnosis

0. No diagnosis
1. Schizophrenia
2. Depression
3. Alcohol Dependence
4. Adjustment Disorder with Depressed Mood

Axis II Diagnosis

0. No personality disorder
1. Schizoid personality disorder
2. Dissocial personality disorder
3. Emotionally Unstable personality disorder, Impulsive type
4. Emotionally Unstable personality disorder, Borderline type
5. Histrionic personality disorder